

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method of automatic level control (ALC) in a video signal processing system having a signal with an added gain, the method comprising the steps of:

- monitoring the back porch level at the video system output;
- comparing the monitored back porch level with a selected target back porch level; and
- controlling the back porch level by applying an offset adapted to the level of gain of the video system, thereby eliminating offset transient caused by a step change in the gain.

Claim 2 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the reiteration of the steps at multiple stages in the video signal processing system.

Claim 3 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the iteration of the steps at an analog stage of a video signal processing system.

Claim 4 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the iteration of the steps at a digital stage of a video signal processing system.

Claim 5 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 wherein the step of controlling the back

porch level further comprises the step of determining a new fine offset control value.

Claim 6 (currently amended): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the reiteration of the steps at a rate ~~slower than the line~~ faster than the frame rate of the video system output.

Claim 7 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the reiteration of the steps at the frame rate of the video system output.

Claim 8 (original): A method of automatic level control (ALC) in a video signal processing system according to claim 1 further comprising the reiteration of the steps at a rate slower than the frame rate of the video system output.

Claim 9 (currently amended): An automatic level control (ALC) method for use in a video signal processing system, the method comprising the steps of:

determining the mean back porch level (N_{BP}) over a selected interval of the video signal;

selecting a target back-porch level (L_{NOM});

determining a new fine offset control value $O_F[n]$, described by the relationship;

$$O_F[n] = (1 - \alpha) * [N_{BP}/G_P - (N_{BP}/G_P - O_F[n-1]) * (a/b + G_F[n]) / (a/b + G_F[n-1])] + \alpha * [L_{NOM}/G_P - (N_{BP}/G_P - O_F[n-1]) * (a/b + G_F[n]) / (a/b + G_F[n-1])], \text{ [Equation 2]},$$

wherein;

$O_F[n]$ is the new fine offset control value;

$O_F[n-1]$ is the immediately preceding fine offset control value;

α is a recursive filter coefficient;

$G_F[n]$ is a fine gain control value;
 $G_F[n-1]$ is an immediately preceding fine gain control value;
 a is the y-intercept, and b is the slope of a linear fine gain control equation;
 L_{NOM} is the target back porch level value referred to the signal output;
 N_{BP} is the mean measured back porch level value; and
 G_P is gain applied between a fine offset stage and the signal output.

Claim 10 (currently amended): An automatic level control (ALC) method according to claim 9 wherein the steps are performed at a rate ~~slower than the~~ faster than the frame rate of the video signal.

Claim 11 (original): An automatic level control (ALC) method according to claim 9 wherein the steps are performed at a frame rate of the video signal.

Claim 12 (original): An automatic level control (ALC) method according to claim 9 wherein the steps are performed at a rate slower than the frame rate of the video signal.

Claim 13 (currently amended): An automatic level control (ALC) method for use in a video signal processing system, the method comprising the steps of:

determining the mean back porch level (N_{BP}) over a selected interval of the video signal;

selecting a target back-porch level (L_{NOM});

determining a new fine offset control value $O_F[n]$, described by the relationship;

$$O_F[n] = N_{BP}/G_P - (N_{BP}/G_P - O_F[n-1]) * G_F[n] / G_F[n-1] + \alpha * (L_{NOM} - N_{BP})/G_P,$$

[Equation 4],

wherein;

$O_F[n]$ is the new fine offset control value;

$O_F[n-1]$ is the immediately preceding fine offset control value;
 α is a recursive filter coefficient;
 $G_F[n]$ is a fine gain control value;
 $G_F[n-1]$ is an immediately preceding fine gain control value;
 L_{NOM} is the target back porch level value referred to the signal output;
 N_{BP} is the mean measured back porch level value; and
 G_P is gain applied between a fine offset stage and the signal output.

Claim 14 (currently amended): An automatic level control (ALC) method according to claim 13 wherein the steps are performed at a rate ~~slower than the line~~ faster than the frame rate of the video signal.

Claim 15 (original): An automatic level control (ALC) method according to claim 13 wherein the steps are performed at a frame rate of the video signal.

Claim 16 (original): An automatic level control method (ALC) according to claim 13 wherein the steps are performed at a rate slower than the frame rate of the video signal.

Claim 17 (currently amended): An automatic level control (ALC) system comprising:

means for processing an analog video signal with a coarse gain and a coarse offset;

means for processing a digital video signal with a fine gain and a fine offset, where said digital video signal comes from digitizing an output of said
means for processing an analog video signal;

—— means for automatic gain control (AGC) for maintaining the amplitude of the video signal;

means for automatically controlling the level of the digital video signal whereby the back porch level is maintained at a target value by applying an a

fine offset adapted to the level of fine gain of the video system, thereby eliminating offset transient caused by a step change in the gain.

Claim 18 (currently amended): An automatic level control (ALC) system according to claim 17 adapted to operate at intervals ~~less frequent than the line~~ more frequent than the frame rate of the video signal.

Claim 19 (original): An automatic level control (ALC) system according to claim 17 adapted to operate at the frame rate of the video signal.

Claim 20 (original): An automatic level control (ALC) system according to claim 17 adapted to operate at intervals less frequent than the frame rate of the video signal.